

## (12) United States Patent Phillipps

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(54)	TELESCOPIC TRANSDUCER MOUNTS							
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(56) References Cited								
U.S. PATENT DOCUMENTS								
			Paajanen					

5,414,444 A

5,467,324 A		11/1995	Houlihan
5,481,616 A	*	1/1996	Freadman 381/90
5,555,449 A	*	9/1996	Kim 455/89
5,584,054 A		12/1996	Tyneski et al.
5,625,673 A	*	4/1997	Grewe et al 379/61
5,742,697 A	٠	4/1998	Ching-Chung 381/169
5,943,627 A			Kim et al 455/569
5,970,418 A	٠	10/1999	Budd et al 455/550
5,983,073 A	٠	11/1999	Ditizik 455/11.1
5,999,822 A	٠	12/1999	Wicks et al 455/550

## FOREIGN PATENT DOCUMENTS

JP	08162820	6/1996

\* cited by examiner

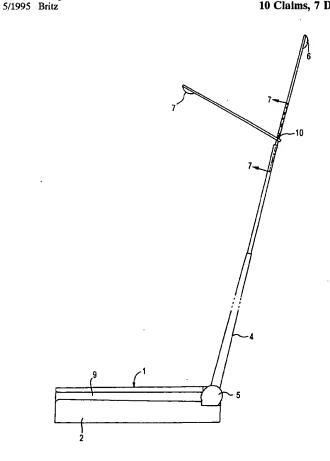
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(57) ABSTRACT

A portable electronic apparatus such as a personal digital assistant (PDA) with a telescopic transducer mount on which is mounted a microphone and an earphone, the positions of which are adjustable relative to one another to enable use of the apparatus in a number of different modes, with optimal positioning of the PDA display, microphone and earphone in relation to the user's eyes, ears and mouth.

## 10 Claims, 7 Drawing Sheets



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